

## PATENT COOPERATION TREATY

## PCT

## INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

REC'D 31 AUG 2001

WIPO PCT

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Applicant's or agent's file reference NNEX0001P	FOR FURTHER ACTION See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416)	
International application No. PCT/US00/21012	International filing date (day/month/year) 28 JULY 2000	Priority date (day/month/year) 28 JULY 1999
International Patent Classification (IPC) or national classification and IPC IPC(7): G01R 1/073 and US Cl.: 324/762, 439/81		
Applicant NANONEXUS, INC.		

1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.
2. This REPORT consists of a total of 3 sheets.

☐ This report is also accompanied by ANNEXES, i.e., sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority. (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).

These annexes consist of a total of 0 sheets.

3. This report contains indications relating to the following items:

- I ☒ Basis of the report
- II ☐ Priority
- III ☐ Non-establishment of report with regard to novelty, inventive step or industrial applicability
- IV ☐ Lack of unity of invention
- V ☒ Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- VI ☐ Certain documents cited
- VII ☐ Certain defects in the international application
- VIII ☐ Certain observations on the international application

Date of submission of the demand 11 DECEMBER 2000	Date of completion of this report 20 JULY 2001
Name and mailing address of the IPEA/US Commissioner of Patents and Trademarks Box PCT Washington, D.C. 20231	Authorized officer TULSIDAS C. PATEL <i>T. Patel</i>
Facsimile No. (703) 305-7722	Telephone No. (703) 308-1736

## INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.

PCT/US00/21012

## I. Basis of the report

## 1. With regard to the elements of the international application: \*

- ☒ the international application as originally filed
- ☒ the description:  
pages 1-42 , as originally filed  
pages NONE , filed with the demand  
pages NONE , filed with the letter of \_\_\_\_\_
- ☒ the claims:  
pages 43-52 , as originally filed  
pages NONE , as amended (together with any statement) under Article 19  
pages NONE , filed with the demand  
pages NONE , filed with the letter of \_\_\_\_\_
- ☒ the drawings:  
pages 1-26 , as originally filed  
pages NONE , filed with the demand  
pages NONE , filed with the letter of \_\_\_\_\_
- ☒ the sequence listing part of the description:  
pages NONE , as originally filed  
pages NONE , filed with the demand  
pages NONE , filed with the letter of \_\_\_\_\_

## 2. With regard to the language, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

These elements were available or furnished to this Authority in the following language \_\_\_\_\_ which is:

- ☐ the language of a translation furnished for the purposes of international search (under Rule 23.1(b)).
- ☐ the language of publication of the international application (under Rule 48.3(b)).
- ☐ the language of the translation furnished for the purposes of international preliminary examination (under Rules 55.2 and/or 55.3).

## 3. With regard to any nucleotide and/or amino acid sequence disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

- ☐ contained in the international application in printed form.
- ☐ filed together with the international application in computer readable form.
- ☐ furnished subsequently to this Authority in written form.
- ☐ furnished subsequently to this Authority in computer readable form.
- ☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
- ☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

4. ☒ The amendments have resulted in the cancellation of:

- ☒ the description, pages NONE
- ☒ the claims, Nos. NONE
- ☒ the drawings, sheets/fig NONE

5. ☐ This report has been drawn as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).\*\*

\* Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rules 70.16 and 70.17).

\*\*Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.

## INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.

PCT/US00/21012

**V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement****1. statement**

Novelty (N)	Claims <u>1-72</u>	YES
	Claims <u>NONE</u>	NO
Inventive Step (IS)	Claims <u>1-72</u>	YES
	Claims <u>NONE</u>	NO
Industrial Applicability (IA)	Claims <u>1-72</u>	YES
	Claims <u>NONE</u>	NO

**2. citations and explanations (Rule 70.7)**

Claims 1-72 the criteria set out in PCT Article 33(2)-(3), because the prior art does not teach or fairly suggest use of spring probe contacts with two metal layers.

Claims 1-72 the criteria set out in PCT Article 33(4), because the apparatus disclosed can be used in twisting of electronic components in an electronic manufacturing industry.

----- NEW CITATIONS -----

NONE

# PCT

## INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference <b>NNEX0001P</b>	<b>FOR FURTHER ACTION</b> see Notification of Transmittal of International Search Report (Form PCT/ISA/220) as well as, where applicable, item 5 below.	
International application No. <b>PCT/US 00/ 21012</b>	International filing date (day/month/year) <b>28/07/2000</b>	(Earliest) Priority Date (day/month/year) <b>28/07/1999</b>
Applicant <b>NANONEXUS, INC.</b>		

This International Search Report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This International Search Report consists of a total of 3 sheets.

☒ It is also accompanied by a copy of each prior art document cited in this report.

### 1. Basis of the report

- a. With regard to the **language**, the international search was carried out on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.

☐ the international search was carried out on the basis of a translation of the international application furnished to this Authority (Rule 23.1(b)).

- b. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, the international search was carried out on the basis of the sequence listing :

☐ contained in the international application in written form.

☐ filed together with the international application in computer readable form.

☐ furnished subsequently to this Authority in written form.

☐ furnished subsequently to this Authority in computer readable form.

☐ the statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.

☐ the statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished

2. ☐ **Certain claims were found unsearchable** (See Box I).

3. ☐ **Unity of invention is lacking** (see Box II).

4. With regard to the **title**,

☒ the text is approved as submitted by the applicant.

☐ the text has been established by this Authority to read as follows:

5. With regard to the **abstract**,

☒ the text is approved as submitted by the applicant.

☐ the text has been established, according to Rule 38.2(b), by this Authority as it appears in Box III. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority.

6. The figure of the **drawings** to be published with the abstract is Figure No.

☐ as suggested by the applicant.

☒ because the applicant failed to suggest a figure.

☐ because this figure better characterizes the invention.

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☐ None of the figures.

# INTERNATIONAL SEARCH REPORT

International Application No

PCT/US 00/21012

**A. CLASSIFICATION OF SUBJECT MATTER**  
IPC 7 G01R1/073 G01R3/00

According to International Patent Classification (IPC) or to both national classification and IPC

**B. FIELDS SEARCHED**

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 G01R

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data, PAJ, IBM-TDB

**C. DOCUMENTS CONSIDERED TO BE RELEVANT**

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 5 828 226 A (ARMENDARIZ NORMAN J ET AL) 27 October 1998 (1998-10-27)	1-5, 11-17, 19-22, 48-61, 63-72 40-47
Y	abstract	
A	column 4, line 9 -column 7, line 30 figures	6-10, 18
X	US 5 152 695 A (GRABBE DIMITRY G ET AL) 6 October 1992 (1992-10-06) abstract	23-39
A	column 1, line 55 -column 2, line 55 figures	62
X	EP 0 681 186 A (MOTOROLA INC) 8 November 1995 (1995-11-08) the whole document	1, 12
	-/--	

☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

\* Special categories of cited documents :

- \*A\* document defining the general state of the art which is not considered to be of particular relevance
- \*E\* earlier document but published on or after the international filing date
- \*L\* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- \*O\* document referring to an oral disclosure, use, exhibition or other means
- \*P\* document published prior to the international filing date but later than the priority date claimed

- \*T\* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- \*X\* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- \*Y\* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
- \*G\* document member of the same patent family

Date of the actual completion of the international search

20 December 2000

Date of mailing of the international search report

29/12/2000

Name and mailing address of the ISA

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Lopez-Carrasco, A

# INTERNATIONAL SEARCH REPORT

Internat. Application No

PCT/US 00/21012

## C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	WO 96 38858 A (ELDRIDGE BENJAMIN N ;MATHIEU GAETEAN L (US); DOZIER THOMAS H (US);) 5 December 1996 (1996-12-05) the whole document ----	40-47
A	EP 0 802 419 A (NIPPON ELECTRIC CO) 22 October 1997 (1997-10-22) the whole document ----	1-72
A	US 5 613 861 A (ALIMONDA ANDREW S ET AL) 25 March 1997 (1997-03-25) the whole document ----	1-72
A	FR 2 518 358 A (EVERETT CHARLES INC) 17 June 1983 (1983-06-17) figure 6 -----	6-10,18

# INTERNATIO SEARCH REPORT

Information on patent family members

Intern: al Application No

PCT/US 00/21012

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
US 5828226 A	27-10-1998	NONE	
US 5152695 A	06-10-1992	NONE	
EP 0681186 A	08-11-1995	US 5534784 A JP 7301642 A	09-07-1996 14-11-1995
WO 9638858 A	05-12-1996	US 5772451 A US 5974662 A US 5829128 A AU 4159896 A AU 4159996 A AU 4160096 A AU 4237696 A AU 4283996 A AU 5939796 A AU 5964096 A AU 5964196 A AU 5965796 A AU 6028796 A AU 6377796 A AU 6635296 A CN 1171167 A CN 1208368 A CN 1191500 A EP 0795200 A EP 0792519 A EP 0792462 A EP 0792463 A EP 0792517 A EP 0837750 A EP 0828582 A EP 0859686 A EP 0886894 A JP 2000067953 A JP 11126800 A JP 2968051 B JP 10510107 T JP 2892505 B JP 9508241 T JP 10506197 T JP 9512139 T JP 11514493 T JP 11508407 T JP 3058919 B JP 10506238 T JP 2000513499 T KR 252457 B US 6090261 A US 6042712 A US 6110823 A WO 9615551 A WO 9616440 A WO 9615458 A WO 9615459 A WO 9617378 A WO 9637331 A	30-06-1998 02-11-1999 03-11-1998 06-06-1996 17-06-1996 06-06-1996 06-06-1996 19-06-1996 11-12-1996 11-12-1996 11-12-1996 22-05-1997 11-12-1996 11-12-1996 18-12-1996 21-01-1998 17-02-1999 26-08-1998 17-09-1997 03-09-1997 03-09-1997 03-09-1997 03-09-1997 29-04-1998 18-03-1998 26-08-1998 30-12-1998 03-03-2000 11-05-1999 25-10-1999 29-09-1998 17-05-1999 19-08-1997 16-06-1998 02-12-1997 07-12-1999 21-07-1999 04-07-2000 16-06-1998 10-10-2000 15-04-2000 18-07-2000 28-03-2000 29-08-2000 23-05-1996 30-05-1996 23-05-1996 23-05-1996 06-06-1996 28-11-1996

# INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/US 00/21012

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
EP 0802419 A	22-10-1997	JP 3022312 B JP 9281144 A SG 55303 A US 6114864 A	21-03-2000 31-10-1997 21-12-1998 05-09-2000
US 5613861 A	25-03-1997	EP 0834243 A JP 11506829 T WO 9641506 A US 5848685 A US 5914218 A	08-04-1998 15-06-1999 19-12-1996 15-12-1998 22-06-1999
FR 2518358 A	17-06-1983	NONE	